

AMENDMENTS TO THE CLAIMS

Listing of Claims

The following listing of claims replaces all prior versions and listings of claims in the application.

1. (Previously presented): A centrifugal impeller comprising:
a plurality of blades disposed between an impeller inlet and an impeller outlet;
a plurality of fluid paths for delivering a fluid from said impeller inlet to said impeller outlet with the rotation of said centrifugal impeller, each of said fluid paths being formed between adjacent two of said blades; and

a shroud and a hub for forming said fluid paths;

wherein in a meridional-plane cross-section of said centrifugal impeller, a curved line of said shroud, which forms said fluid path, curves so as to project toward said hub in a region from a blade inlet to a predetermined position of said blade so that said fluid path is widened from said blade inlet to said predetermined position, and said curved line curves so as to project toward the opposite side of said hub in a region from said predetermined position of said blade to a blade outlet so that said fluid path is widened in a region downstream of said predetermined position and narrowed in the vicinity of said blade outlet.

2. (Original): A centrifugal impeller according to claim 1, wherein said predetermined position of said blade is located near a center of said blade in a meridional plane.

3. (Original): A centrifugal impeller according to claim 1 or 2, wherein stream lines formed at a side of said hub and a side of said shroud correspond to each other when viewed in an axial direction of said centrifugal impeller.

4. (Currently amended): A centrifugal impeller according to ~~any one of claims 1 to 3~~ claim 1 or 2, wherein a distance between adjacent two of said blades is gradually increased from said blade inlet to said predetermined position of said blade, and is decreased from said predetermined position of said blade toward said blade outlet.

5. (Original): A centrifugal impeller comprising:
a plurality of blades disposed between an impeller inlet and an impeller outlet;
a plurality of fluid paths for delivering a fluid from said impeller inlet to said impeller outlet with the rotation of said centrifugal impeller, each of said fluid paths being formed between adjacent two of said blades; and
a shroud and a hub for forming said fluid paths;
wherein a distance between adjacent two of said blades is gradually increased from a blade inlet to a predetermined position of said blade, and is decreased from said predetermined position of said blade toward a blade outlet.

6. (Original): A centrifugal impeller according to claim 5, wherein said predetermined position of said blade is located near a center of said blade in a meridional plane.

7. (Original): A centrifugal impeller according to claim 5 or 6, wherein stream lines formed at a side of said hub and a side of said shroud correspond to each other when viewed in an axial direction of said centrifugal impeller.

8. (Currently amended): A pump apparatus comprising:
a centrifugal impeller according to ~~any one of claims 1 to 7~~ claim 1, 2, 5 or 6
a casing for housing said centrifugal impeller; and
a rotatable main shaft to which said centrifugal impeller is attached.